Best Barns USA
Assembly Book

Revised November 19, 2014

the Elm Door Installed on 10' Wide End

Manufactured by Reynolds Building Systems, Inc.

205 Arlington Drive Greenville, PA 16125 724-646-3775

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Important Information About Your Shed Kit

Thank you for purchasing our Elm shed kit. **If you received two books, use the one with the latest revision date.**

The material that is included in our kit is listed on the back page. The siding, roof sheathing and the optional floor package, *if ordered*, will be supplied by a local supplier.

Our kit does not include the shingles, the quantity needed is listed on the back page. The siding is primed. You will need to apply a finish coat using latex acrylic paint.

Our framing lumber is imported to provide you the highest quality available. However, if you need to replace any lumber for any reason please do so and we will reimburse you.

IMPORTANT: Unpack the material from the pallet, then unscrew the bottom 2x4s from the pallet runners. The bit for the screws is packed in the hardware bag.

Stacking the boards, according to size, will make them easier to find when needed. Some boards have colored ends. **Do Not** discard any material until your building is complete.

If you have any questions about assembling the kit, call 800-245-1577. If you are calling after normal business hours, call 724-866-HELP (4357) or email to help@barnkits.com.

Before you begin construction, be sure to study this assembly manual. Also, obtain a building permit and check all pertinent building code regulations.

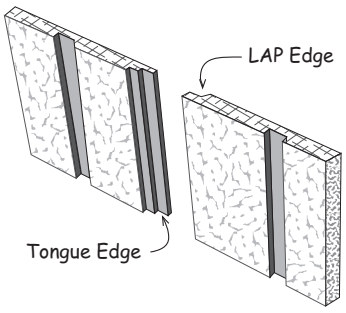
Thank you for your purchase. Bill & Linda Rinella, owners

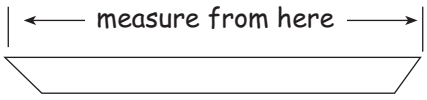
Important Siding Information

To identify which edge we want you to use, we will refer to the edge as the 'LAP' or Tongue Edge.

Square walls before applying siding. *Measure the wall diagonally (corner to corner). The measurements will be the same when the wall is square.*

Use 8d galv. nails when applying siding to the lower walls. Space nails 12" apart.





When measurements are given for a board length or width, it is from the longest side.

Tool List

- ❑ Hammer & Hand Saw
- ❑ Framing Square & Level
- ❑ Power Circular Saw
- ❑ Power Drill/screwdriver
- ❑ Measuring Tape/Caulking Gun
- ❑ 2-6' Step Ladders

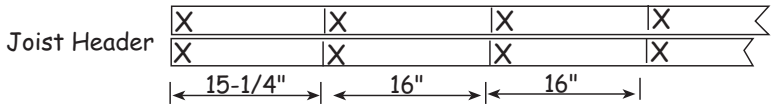
Always wear safety glasses when cutting or nailing!

Constructing Details for Deluxe Floor System

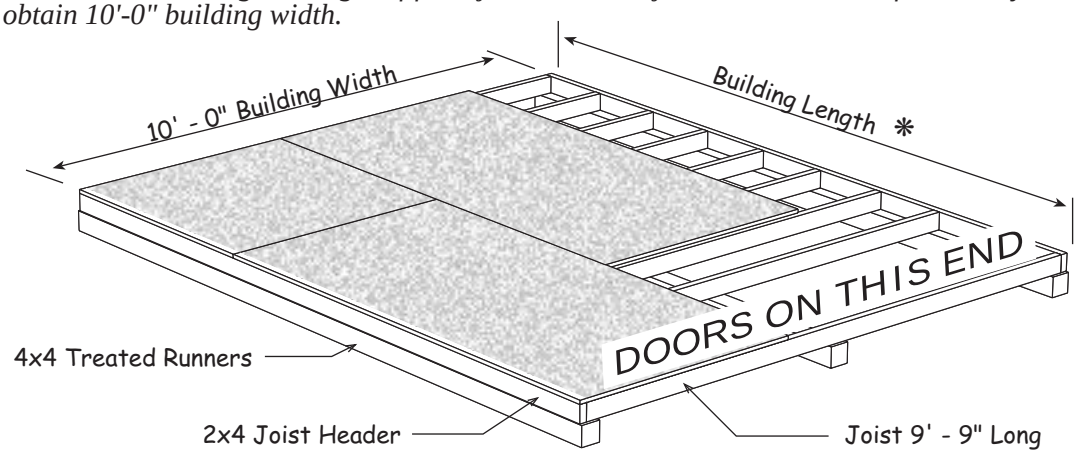
Deluxe floors include 4x4 runners, standard floors do not

For a concrete slab, install sill sealer as a moisture barrier between the concrete and the wall plates. Foam sill sealer can be purchased at home centers in rolls 3-1/2" or wider.

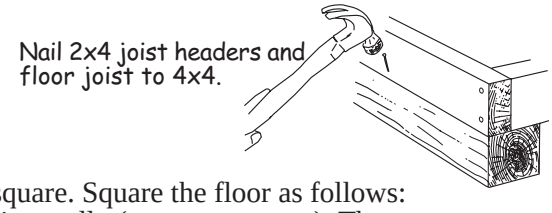
1. Cut 2x4 joist headers to length. Layout for 16" on center joist spacing. 'X' marks where floor joist will be placed.



2. Cut 2x4-10' floor joist to 9'-9". *Treated lumber may be thicker than 1-1/2". Take this into account when cutting the length of floor joists. Shorten joist measurements if necessary to obtain 10'-0" building width.*



* Floor length for 8' shed is..... 8' 0"
Floor length for 10' shed is.....10' 0"
Floor length for 12' shed is.....12' 0"
Floor length for 16' shed is.....16' 0"

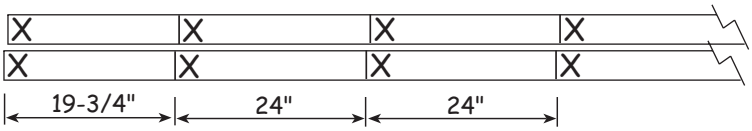


It is very important that the floor be level and square. Square the floor as follows: before nailing the flooring, measure the floor diagonally (corner to corner). Then measure the opposite corners. These measurements will be the same if the floor is square. To keep the 2x4 frame from moving, toenail frame to the 4x4 runners.

Material Description	10' x 8' shed		10' x 10' shed		10' x 12' shed		10' x 16'shed	
2x4 Joist Headers	2 pcs.	8'	2 pcs.	10'	2 pcs.	12'	2 pcs.	16'
2x4 Floor Joist	7 pcs.	10'	9 pcs.	10'	10 pcs.	10'	13 pcs.	10'
4x4 Treated Runners	3 pcs.	8'	3 pcs.	10'	3 pcs.	12'	6 pcs.	8'
Flooring 5/8" or 3/4"	3 pcs.	4x8	4 pcs.	4x8	4 pcs.	4x8	5 pcs.	4x8
Screw Floor Nails	1 lb.	8d	1 lb.	8d	1 lb.	8d	2 lbs.	8d
Galv. Box Nails	1 lb.	16d	1 lb.	16d	2 lbs.	16d	2 lbs.	16d

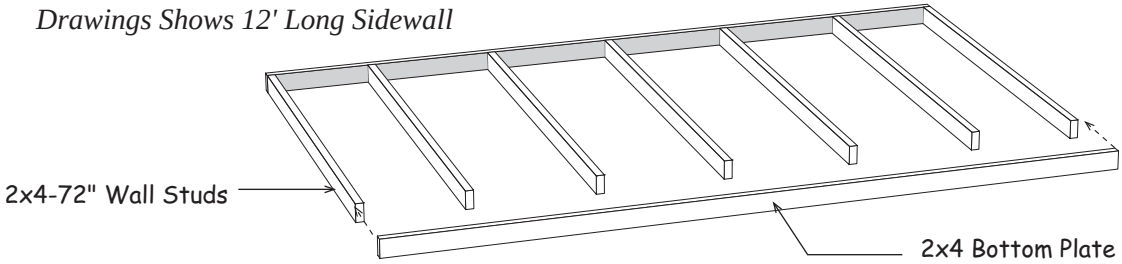
Step 1 Assemble Side Walls

1. Depending on your building length, cut (2) two 2x4 boards to the length shown below.
   8' Shed - 89" long 10' Shed - 113" long 12' Shed - 137" long 16' Shed - 185" long
2. Position the 2x4s together and indicate with 'X' marks where the wall studs will be located.



3. Install 72" long wall studs, between the wall plates, over the 'X' marks. Nail together using (2) two 10d sinkers on each end of the stud.

Drawings Shows 12' Long Sidewall



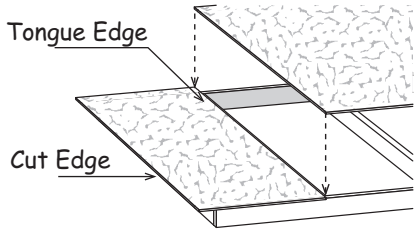
4. Square wall frame. Cut siding to 78" in length. See below for number of pieces to cut. Note: If assembling a 10' shed cut one panel in half along the length.

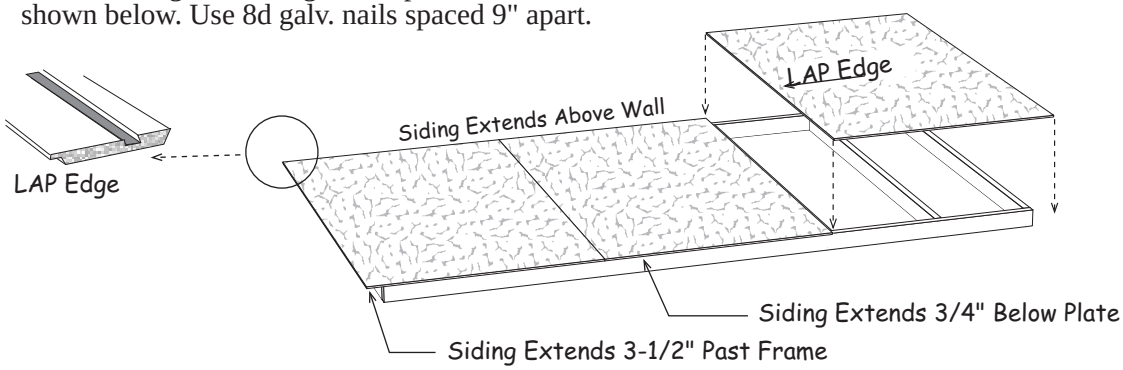
   Building length: 8' - 4 pcs. 10' - 5 pcs 12' - 6 pcs 16' - 8 pcs

   IMPORTANT: Install all siding extending 3/4" below the bottom plate. Tip: Use a 3/4" trim board as a gauge.

5. For a 10' long building, install the half siding panel that has the 'Tongue Edge' edge. Place with the cut edge extending 3-1/2" past wall frame.

   For other lengths, install a full width siding panel with the "LAP' edge extending 3-1/2" past the wall frame as shown below. Use 8d galv. nails spaced 9" apart.



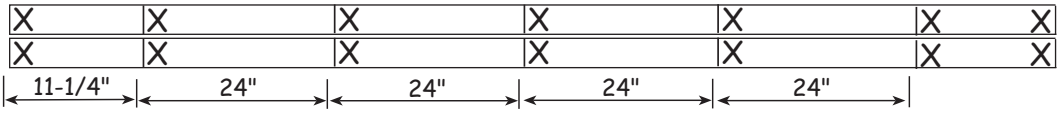


6. Set aside remaining siding for the front wall.

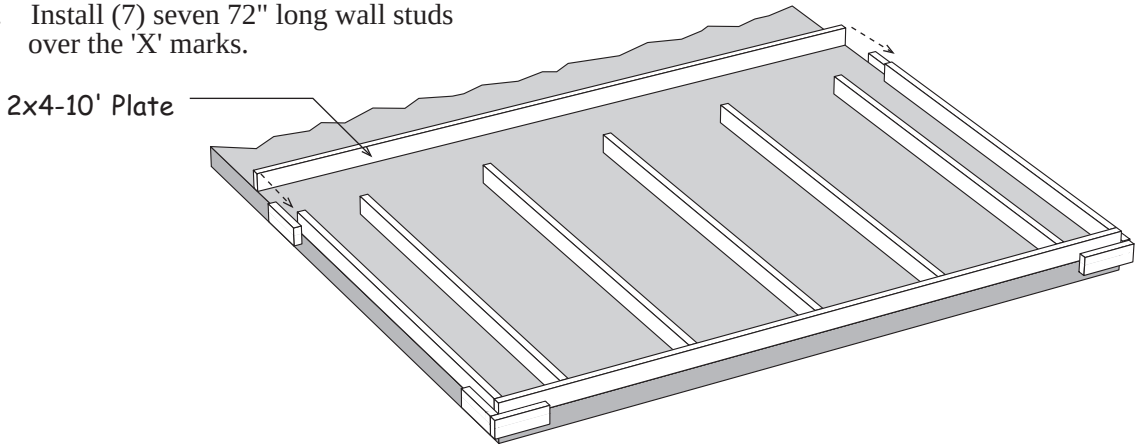
Step 2 Assemble Back Wall

To aid in the assembly of the back wall, attach 2x4 packing blocks to your floor with 2-1/2" screws. This will trap the perimeter 2x4s until they are nailed together.

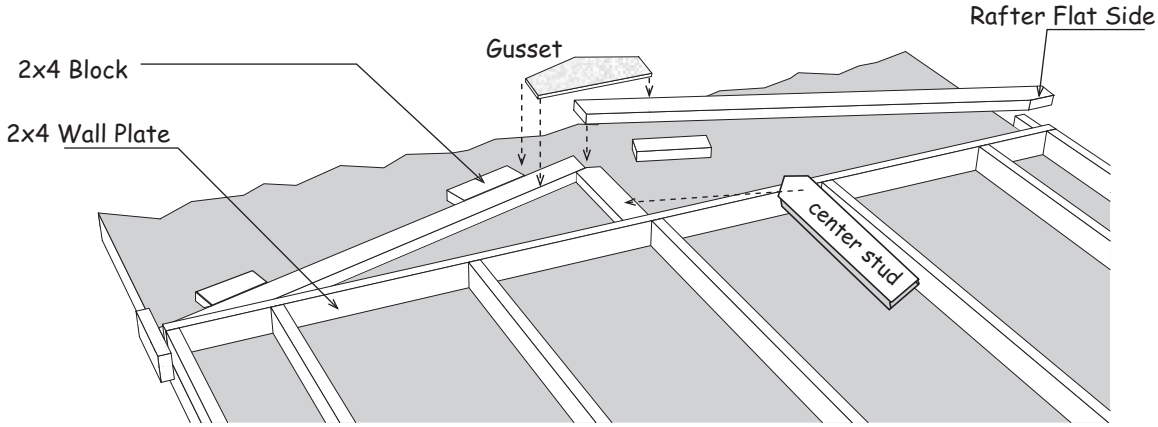
1. Cut (2) two 2x4-10' boards to a length of 10' - 0". They will be used for wall plates.
2. Position 2x4s together and indicate with 'X' marks where the wall studs will be located.



3. Install (7) seven 72" long wall studs over the 'X' marks.



4. Place (2) two rafter halves together with the flat side against the top 2x4 wall plate.
5. Place a 2x4 center stud (pointed end) between the top plate and peak. Secure top with a wood gusset. Nail the gusset to the 2x4s with (12) twelve 6d common nails. Angle nails slightly so nails do not protrude through the 2x4s.
6. Temporarily screw (2) two 2x4 blocks along the top of 2x4 rafters. This will help with the assembly of other gable and the trusses.



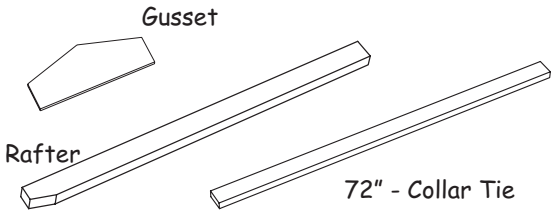
7. Set aside the top finished gable and repeat numbers 4-6 to assemble another gable.

Step 3 Assemble Roof Trusses

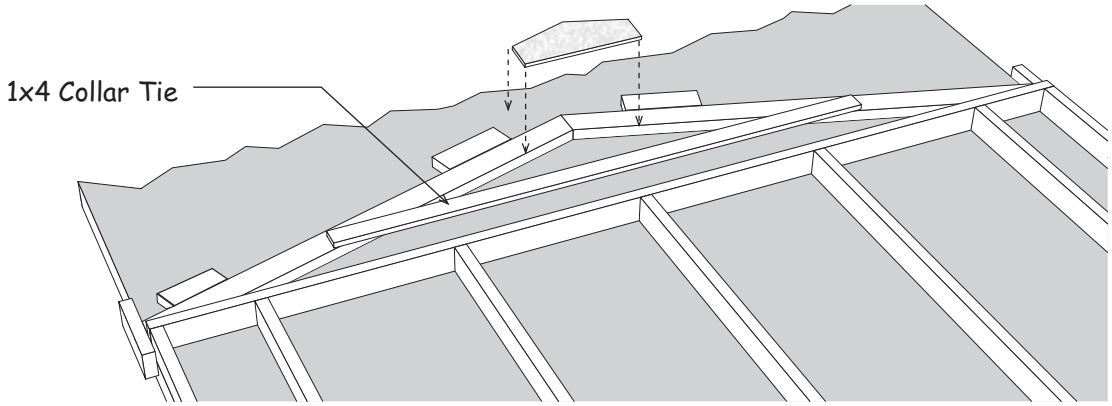
Before removing sidewall and rafter blocks assemble the roof trusses.

1. Gather truss pieces. See chart below.

Buildig Length	*8'*	*10'*	*12'*	*16'*
Truss Half	6	8	10	14
Wood Gusset	6	8	10	14
1x4 Collar Tie	3	4	5	7



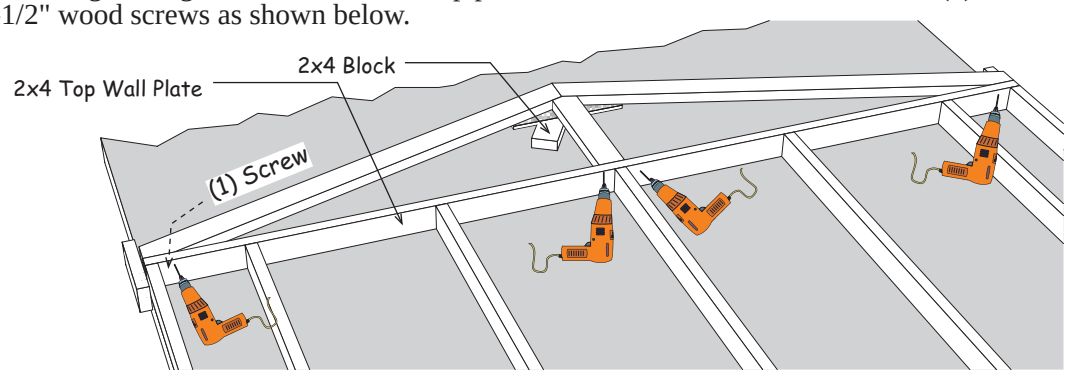
2. Place (2) two rafter halves on top of the wall plate and secure top with a wood gusset.
3. Install 1x4-72" collar ties across the truss parallel with top of wall. Secure with (2) two 6d common nails on each end of collar tie.
4. Turn assembled truss over and install a gusset on the other side.
5. Repeat to assemble more trusses.



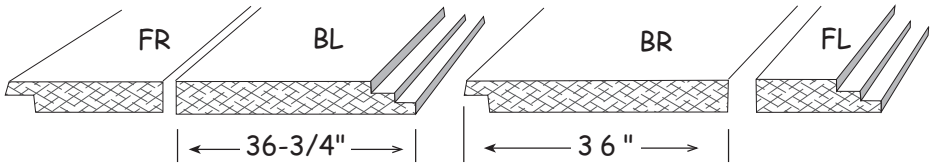
Step 4 Apply Siding on Back Wall

1. Remove the 2x4 blocks that were used as a guide at the top of rafters. Place a gable assembly on back wall with the gusset facing downward, towards the floor. Place a 2x4 block under gusset to elevate gable.

2. Hold the gable legs flush with the 2x4 top plate on the wall frame and secure with (4) four 2-1/2" wood screws as shown below.



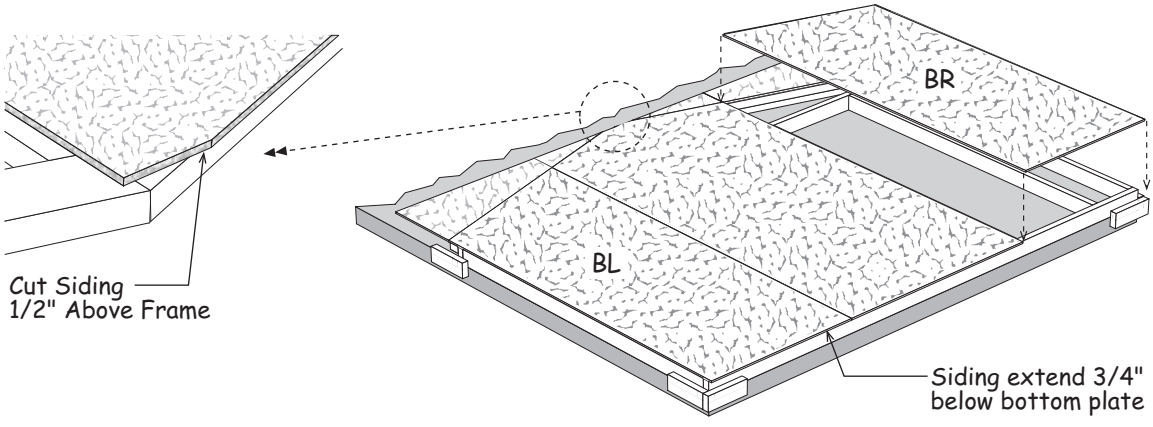
3. Select (2) 4x8 siding panels and cut panels to the widths shown below. Mark the panels, *on the face side*, so they can be identified later.



4. Install the siding panel 'BL' on the left corner. The siding should extend 3/4" below the bottom plate. Use the shorter 6d galv. nails on the upper 2x4 gable frame.

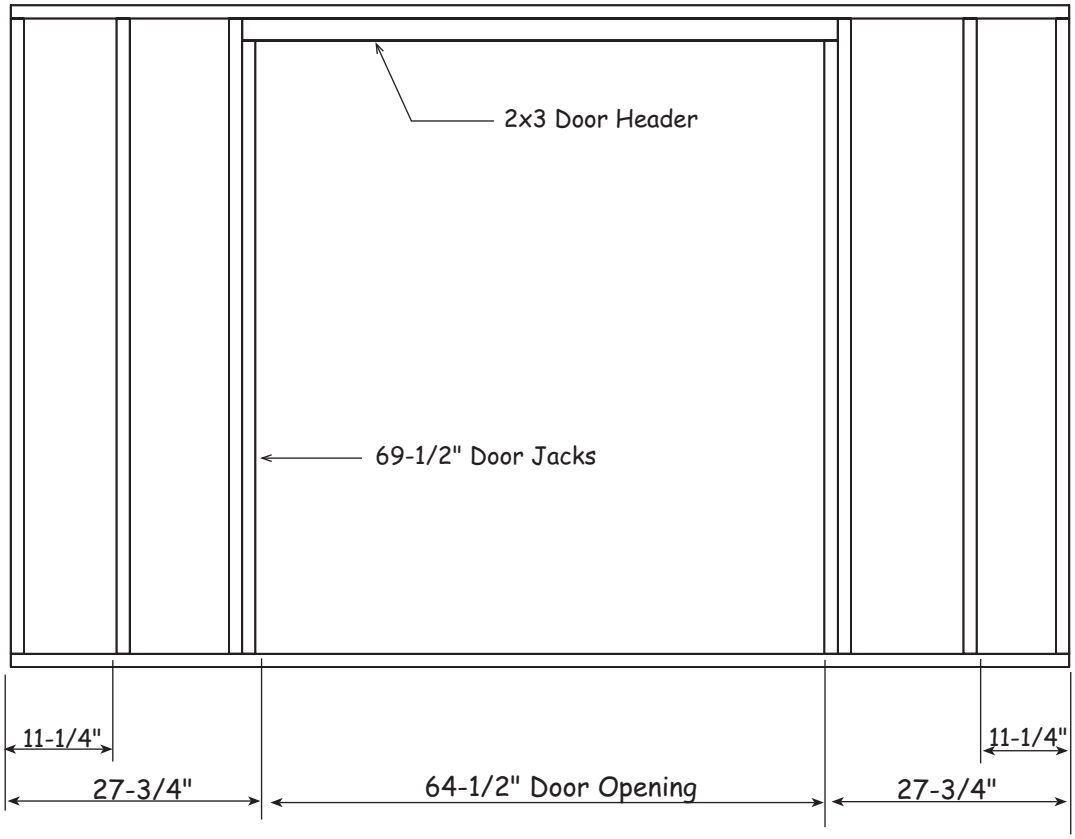
5. Install a 4x8 siding panel in the center and the panel labeled 'BR' last.

6. The siding needs to extend above the top of the wall frame to receive the roof sheathing when installed later. Mark and cut the siding, *above the 2x4 gable frame*, the thickness of the roof sheathing. See detail below.



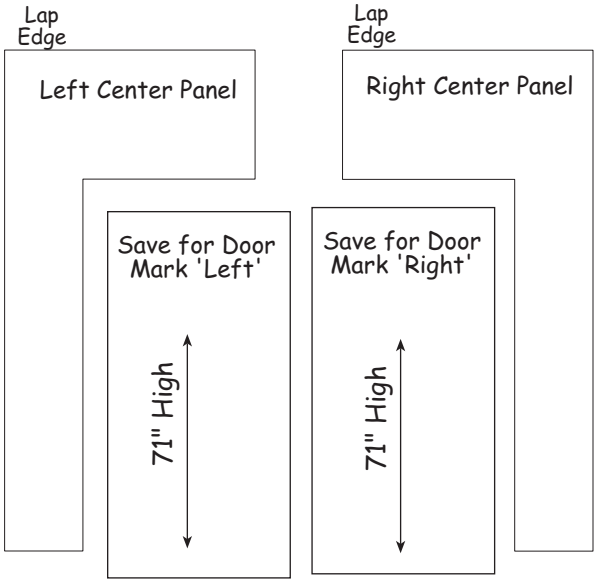
Step 5 Assemble Front Wall

1. Cut (2) two 2x4-10' boards to 10'-0".
2. Install 72" long wall studs, between the wall plates per layout below.
3. Install 69-1/2" long door jacks with 67-1/2" long 2x3 door header with above.

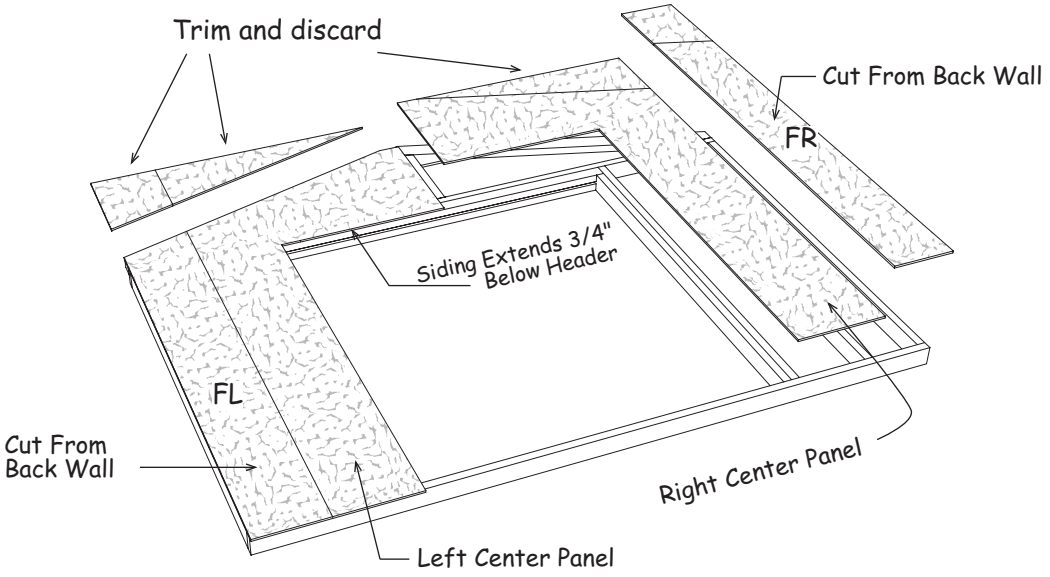


Step 6 Install Siding on Front Wall

1. Square wall frame. Locate the siding leftover from the back wall. Install the siding panel marked 'FL' on the left end of the front wall.



2. Place a 4x8 siding panel on the front wall frame. The siding should extend 3/4" below the bottom plate. Cut the siding from the door opening by cutting the siding flush with the side of the door frame and 71" in height.
3. Install siding . The siding will extend 3/4" below the door header.
4. Cut and install another siding panel on the other side of the door opening.
5. Install the siding panel 'FR' leftover from the back wall.
6. Cut siding panels the thickness of the roof sheathing above the 2x4 frame.

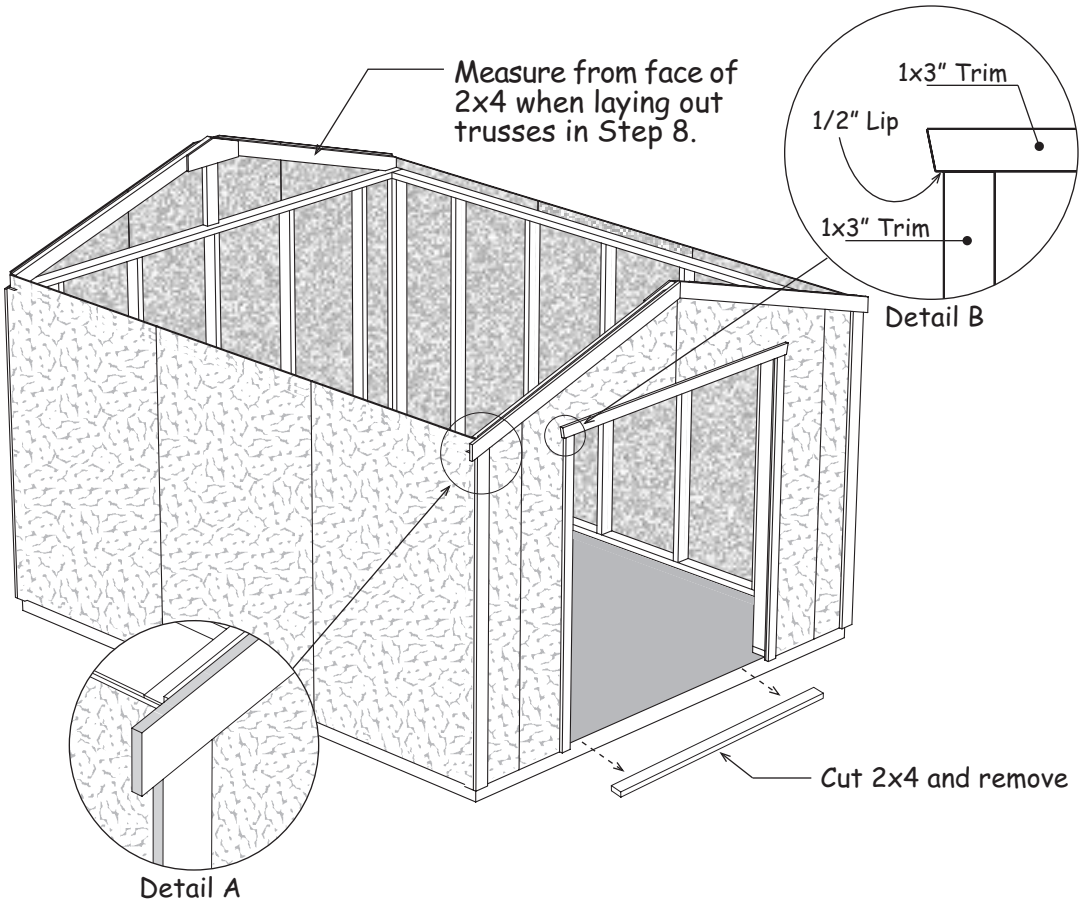


7. Remove jig blocks attached to foundation.

Step 7 Set Walls & Install Trim

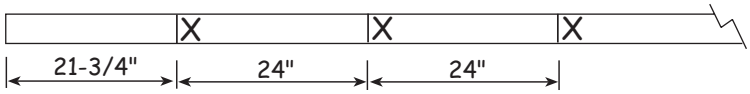
1. Install wall panels. Secure wall panels together at the corners with 10d sinkers. Nail wall panels to floor with 16d galv. deck nails. Do not nail bottom plate between door frame.
2. Cut out bottom plate of door opening and discard.
3. Install (4) four 65-5/8" long 1x4 gable trim on front and back walls. Install flush with top of siding. See Detail A.
4. Install (4) four 75-7/8" long 1x4 trim on corners of front and back walls. Install trim extending 3/4" past the side walls to receive the sidewall corner trim when installed later.
5. Install (2) two 71-3/4" long 1x3 door trim on each side of door frame. Temporarily tack trim flush with door opening and bottom of siding so they can be adjusted if necessary when installing the doors.
6. Install 71-1/2" long 1x3 on top of door side trim. Trim will extend 1/2" past side trim. See Detail B.

IMPORTANT: Install all trim using 8d galvanized nails.

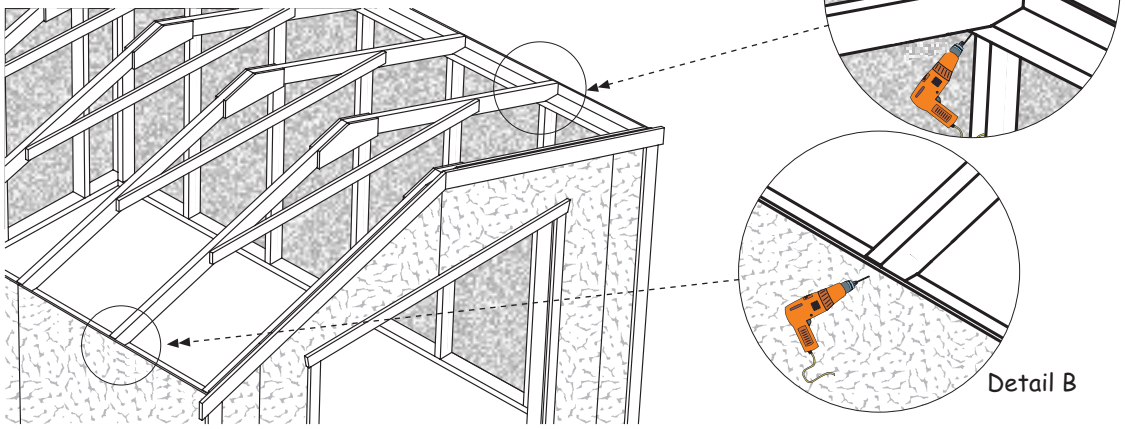


Step 8 Install Trusses

1. Layout for trusses. Measuring from the inside face of the rear gable, mark an 'X' on top of each side wall where trusses will be placed.

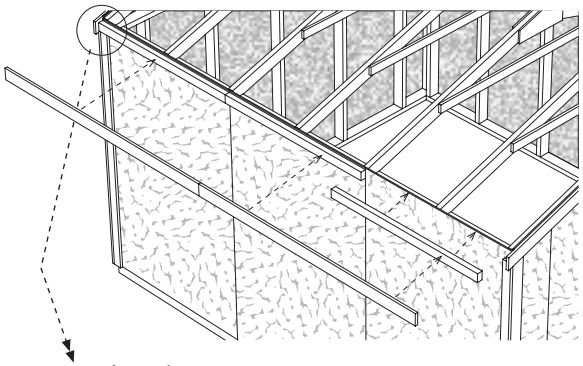


2. Secure both ends of the truss by screwing through wall siding into truss end using a 1-1/4" wood screw. Secure truss to top plate using a 2-1/2" wood screw. See Detail A and Detail B.

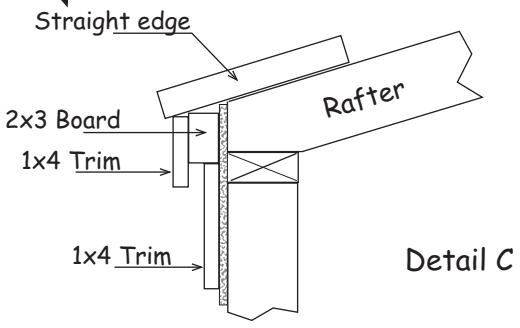


Step 9 Install Fascia

IMPORTANT: Install the 2x3 boards and the 1x4 trim to same pitch as trusses. Use a straight edge to align the top edges of 2x3's and 1x4 trim. *See Detail 'C'.*



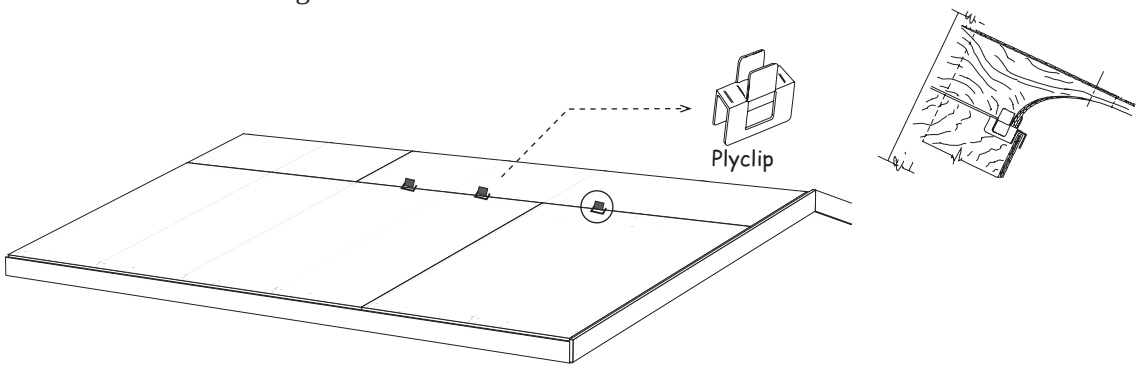
1. Install 48" long 2x3 boards starting from back wall. Allow a 3/8" gap between end of board and back of gable trim. Use 10d sinkers.
2. Cut 1x4 trim boards to fit between front and back gable trim. Use 8d galv. nails.
3. Repeat for opposite wall.
4. Install (4) four 75" long 1x4 trim on corners of side walls.

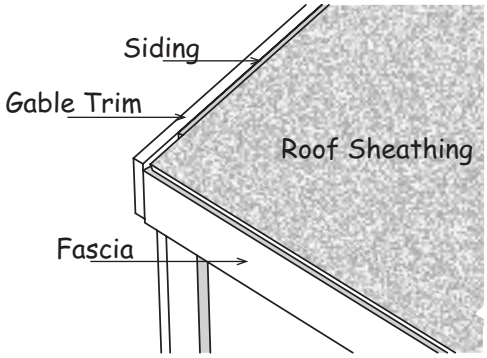


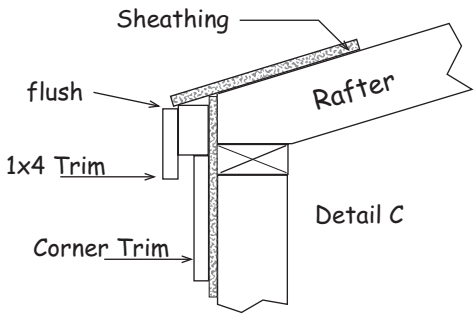
Step 10 Install Roof Sheathing

Install roof sheathing with 7d sinkers, space nails 12" apart. When installing sheathing across the top, insert a plyclip into the roof sheathing between each truss. There will be a 1" space from top of roof sheathing and roof peak.

Install the first 4x8 roof sheathing panel against the back of the siding. Note: Install the top edge of the bottom roof sheathing flush with the face of the 1x4 fascia. See Detail 'C'.





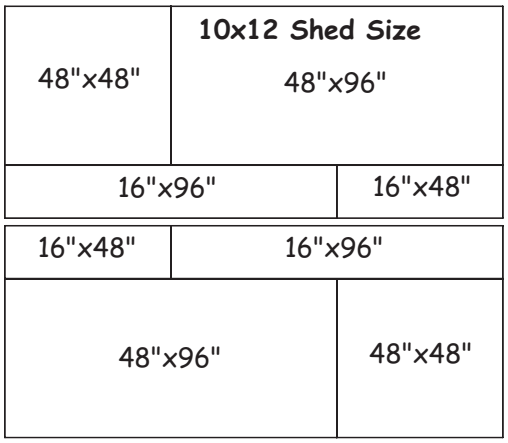


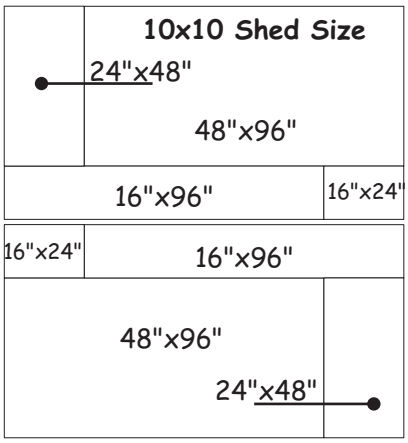
Cut roof sheathing per the appropriate layout below for your shed size.

10x8 Shed Size
48"x96"
16"x96"
16"x96"
48"x96"

10x16 Shed Size		
48"x96"		48"x96"
16"x48"	16"x96"	16"x48"
16"x48"	16"x96"	16"x48"
48"x96"		48"x96"

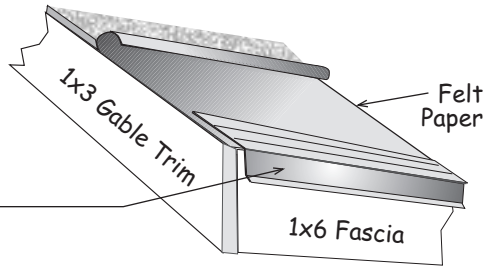
Step 10 Install Roof Sheathing Continued





Step 11 Install Roofing — Not Supplied in Kit

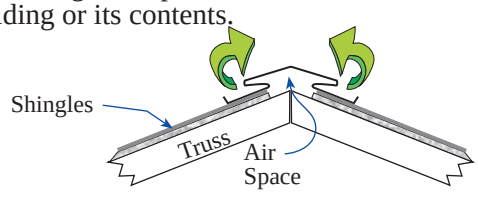
1. Install metal roof edging perimeter of the roof area. If you are not installing shingles at this time, you can purchase felt paper to protect the roof sheathing. Install the felt paper before you install the metal roof edge.



2. Install shingles according to the instructions on the wrapper. If you need more detailed instructions on installing shingles, there are good publications at book stores or newsstands.

Building Tip: Install a ridge vent in lieu of shingle caps. Ridge vent provides ideal ventilation, preventing heat or moisture from damaging your building or its contents.

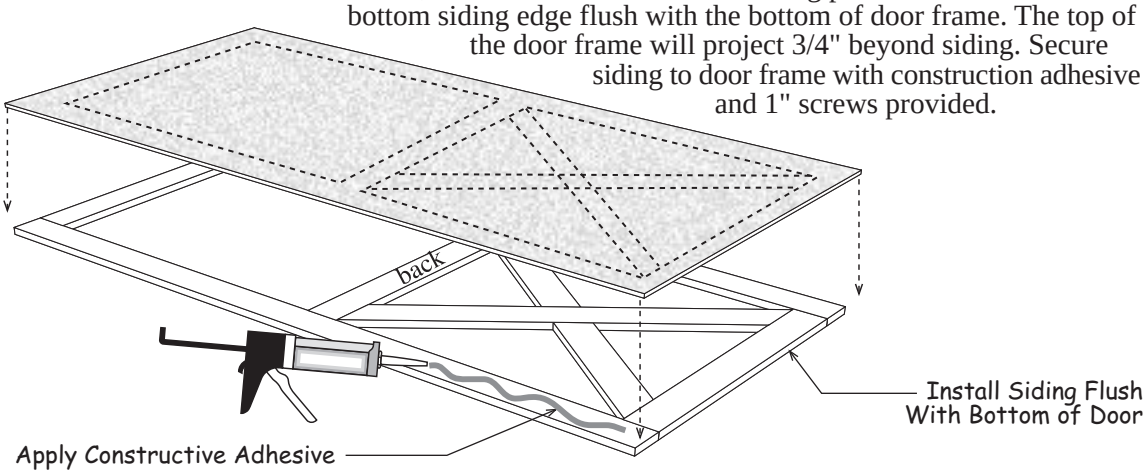
Optional ridge vent provides ideal ventilation.



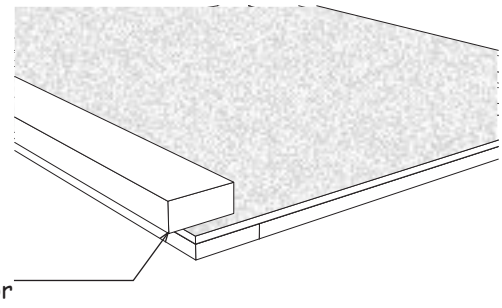
Step 12 Apply Siding to Doors

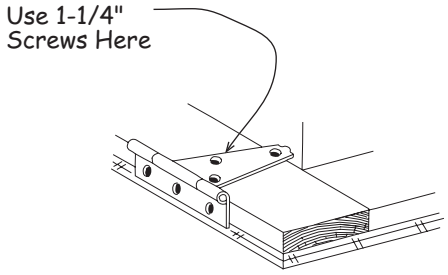
Tip: Paint the siding and the door frames before you attach the siding to the door. It will be easier to paint the door frame before the siding is applied. Seal the bottom edges of the siding and door frames. If the bottom of the doors are in close vicinity to the ground or ramp, they will absorbed moisture and rot.

1. Locate siding for the left door. Cut the siding, *the factory edge*, to the width of the door frame. Cut the length to 71". Trace the shape of the door on the backside of the siding panel. This will serve as a guide for fastener placement. The door frames are temporarily held together with corrugated fasteners, this is the back side of the door frame.
2. Place the door on level surface, face side down. Position a siding panel on frame with the bottom siding edge flush with the bottom of door frame. The top of the door frame will project 3/4" beyond siding. Secure siding to door frame with construction adhesive and 1" screws provided.



3. Install a 2x4 x 69-1/2" long board to the back of the door. Position this board flush at the top of the siding and extending 3/4" past the edge of the door. This board will serve as a door stop. Secure with 2-1/2" long wood screws.
4. Apply siding to the other door frame.





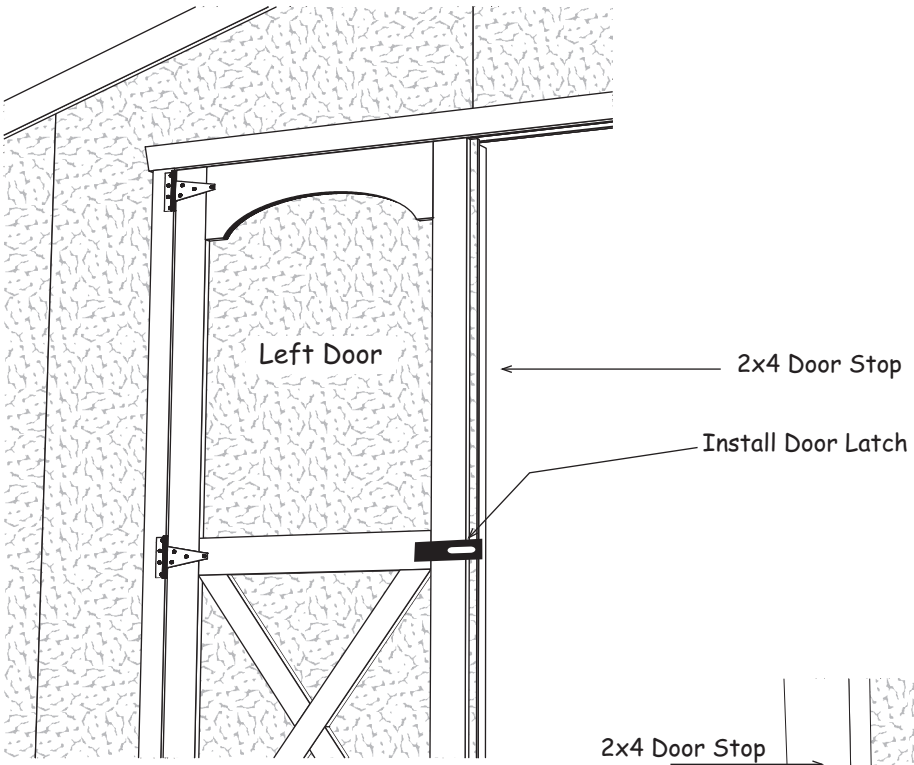
5. Lay doors on level surface with the trim facing up. Install hinges to the left side of the door frame. Use the shorter 1-1/4" screws. The screws have a square head. The bit is packed with the screws. To position the hinge properly, hold the rectangular plate against the frame.
6. Repeat process to install hinges to the right side of the other door.

Step 13 Install Doors & Hardware

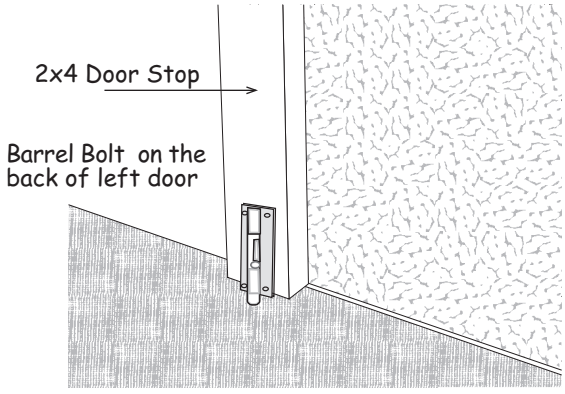
1. Before you fasten the hinges to the door trim, temporarily prop the doors in the opening. Leave a space at the top of the doors and between the doors and the side trim to allow room for the doors to expand when they absorb moisture.

   If your door opening is out of square, the space around the doors will not be even. You can remove and reposition the side trim to make allowances for this. The side trim does not have to be flush with the frame of the door opening. You can move the trim in or out to make the door spacing equal.

   Secure hinges to door trim with 2" screws.



2. Install a barrel bolt on the lower back of the door to secure this door in place when closed. You will need to drill a hole for the round shaft to drop into.
3. Install another barrel bolt at the top of the door.



Elm 10' Wide Barn kit

Packing List

19-Nov-14

Qty.	Description	Size
	2x4 Framing	
27	Wall Studs - **black ends**	72 "
3	Door Jacks & Door Stop	69 1/2"
14	Truss Rafters	62 5/8"
2	Gable Studs	16 3/4"
8	Blocks for truss jig	12 "
	2x3 Framing	
6	Sidewall Overhang	48 "
	Pre-built Components	
2	32" x 72" Barn Doors	
1	Pre-built 67-1/2" Door Header	
	Miscellaneous	
12	Wood Truss Gussets 7" x 12"	

Qty.	Description		Size
	Whie Pine Trim		
4	1x4 Gable Trim		65 1/2"
4	1x4 Corner Trim		75 3/4"
4	1x4 Corner Trim		75 1/4"
2	1x4 Door Trim		72 "
1	1x3 Door Trim		71 3/4"
5	1x4 Truss Collar Tie		72 "
	Hardware		
3	lb. 10d Sinkers	6	5" Door Hinges
3	lb. 8d Galv. Nails	2	6" Barrel Bolts
3	lb. 7d Sinkers	1	Door Latch
2	lb. 6d Common	48	Hinge Screws
12	7/16" Plyclips	36	2-1/2" Screws
		96	1" Screws

Material Packed in 4' Extension Kit

Qty.	***2x4 Framing***	Size
4	2x4 Wall Studs - **black ends**	72 "
4	2x4 Truss Rafters	62 5/8"
2	2x3 Overhang	48 "
2	1x4 Truss Collar Tie	72 "

	Hardware	
1/2	lb. 7d Sinkers	
1/2	lb. 8d Galv. Nails	
4	Wood Truss Gussets	7" x 12"
4	7/16" Plyclips	

Material Supplied by Local Home Center

Description	10'x8'	10'x10'	10'X12'	10'X16'
Exterior Siding	9 pcs.	10 pcs.	11 pcs.	13 pcs.
Roof Sheathing	3 pcs.	4 pcs.	4 pcs.	6 pcs.
2x4 - 8' Plates	4 pcs.	.....	.....	.....
2x4 - 10' Plates	4 pcs.	8 pcs.	4 pcs.	4 pcs.
2x4 - 12' Plates	.....	.....	4 pcs.	.....
2x4 - 16' Plates	.....	.....	.....	4 pcs.
1x4 W.P. Trim	20 l.f.	24 l.f.	28 l.f.	36 l.f.

Optional Roof Shingles

Description	10'x8'	10'x10'	10'X12'	10'X16'
Roof Shingles	4 bdl.	5 bdl.	5 bdl.	7 bdl.
10' Roof Edge	5 pcs.	5 pcs.	6 pcs.	7 pcs.